

W. JEFFREY REYNOLDS

TECHNICAL CONSULTANT

Signature

Date

9/21/2011

Mailing Address

DU TREIL, LUNDIN & RACKLEY, INC.
201 FLETCHER AVENUECity
SARASOTAState or Country (if foreign address)
FLZip Code
34237 - 6019Telephone Number (include area code)
9413296000E-Mail Address (if available)
JEFF@DLR.COM

WILLFUL FALSE STATEMENTS ON THIS FORM ARE PUNISHABLE BY FINE AND/OR IMPRISONMENT (U.S. CODE, TITLE 18, SECTION 1001), AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. CODE, TITLE 47, SECTION 312(a)(1)), AND/OR FORFEITURE (U.S. CODE, TITLE 47, SECTION 503).

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Section III-A - Engineering**TECHNICAL SPECIFICATIONS**

Ensure that the specifications below are accurate. Contradicting data found elsewhere in this application will be disregarded. All items must be completed. The response "on file" is not acceptable.

TECH BOX

1. Channel: 256

2. Primary Station:

Facility ID Number	Call Sign	City	State
27199	WWOJ	AVON PARK	FL

3. Delivery Method (Select One):

☐ Off-air ☐ Microwave ☐ Satellite ☐ Via ☒ Other

4. Antenna Location Coordinates: (NAD 27)

Latitude:

Degrees 27 Minutes 42 Seconds 41 ☒ North ☐ South

Longitude:

Degrees 81 Minutes 33 Seconds 4 ☒ West ☐ East

5. Antenna Structure Registration Number: 1212923

☒ Not Applicable ☐ Notification filed with FAA

6. Antenna Location Site Elevation Above Mean Sea Level:

37 meters

7. Overall Tower Height Above Ground Level:

83 meters

8. Height of Radiation Center Above Ground Level:

meters(H) 38 meters(V)

9. Effective Radiated Power:

kW(H) 3 kW(V)

10. Transmitting Antenna:

Before selecting Directional "Off-the-Shelf", refer to "Search for Antenna Information" under CDBS Public Access (http://licensing.fcc.gov/prod/cdb/publicacc/prod/cdb_pa.htm). Make sure that the Standard Pattern is marked Yes and that the relative field values shown match your values. Enter the Manufacturer (Make) and Model exactly as displayed in the Antenna Search.

☐ Nondirectional ☐ Directional "Off-the-shelf" ☒ Directional composite

Manufacturer ALD Model ALP.08.02.712

Rotation: 13 degrees ☐ No Rotation

Degrees	Value	Degrees	Value	Degrees	Value	Degrees	Value	Degrees	Value	Degrees	Value
0	1	10	0.938	20	0.766	30	0.529	40	0.296	50	0.119
60	0.017	70	0.023	80	0.027	90	0.018	100	0.01	110	0.004

120	0.001	130	0.004	140	0.006	150	0.006	160	0.005	170	0.004
180	0.003	190	0.003	200	0.005	210	0.005	220	0.005	230	0.004
240	0.001	250	0.003	260	0.01	270	0.017	280	0.025	290	0.021
300	0.016	310	0.116	320	0.294	330	0.517	340	0.749	350	0.928
Additional Azimuths											

Relative Field Polar Plot

11.	For FM Boosters and Fill-in translators only. a. FM Fill-in translators. Applicant certifies that the FM translator's (a) coverage contour does not extend beyond the protected contour of the commercial FM primary station to be rebroadcast, or (b) entire 60 dBu contour is contained within the lesser of: (i) the 2 mV/m daytime contour of the AM primary station to be rebroadcast, or (ii) a 25-mile radius centered at the AM primary station's transmitter site. b. FM Boosters. Applicant certifies that the FM Booster station's service contour is entirely within the primary station's protected coverage contour.	<input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> N/A See Explanation in [Exhibit 10] <input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A See Explanation in [Exhibit 11]
12.	Interference. The proposed facility complies with all of the following applicable rule sections. Check all that apply: Overlap Requirements. <input checked="" type="checkbox"/> a) 47 C.F.R. Section 74.1204 Exhibit Required. Television Channel 6 Protection. <input type="checkbox"/> b) 47 C.F.R. Section 74.1205 with respect to station(s) Exhibit Required.	<input checked="" type="radio"/> Yes <input type="radio"/> No See Explanation in [Exhibit 12] [Exhibit 13] [Exhibit 14]
13.	Unattended operation. Applicant certifies that unattended operation is not proposed, or if this application proposes unattended operation, the applicant certifies that it will comply with the requirements of 47 C.F.R. Section 74.1234.	<input checked="" type="radio"/> Yes <input type="radio"/> No See Explanation in [Exhibit 15]
14.	Multiple Translators. Applicant certifies that it does not have any interest in an application or an authorization for an FM translator station that serves substantially the same area and rebroadcasts the same signal as the proposed FM translator station.	<input checked="" type="radio"/> Yes <input type="radio"/> No See Explanation in [Exhibit 16]
15.	Environmental Protection Act. Applicant certifies that the proposed facility is excluded from environmental processing under 47 C.F.R. Section 1.1306 (i.e., the facility will not have a significant environmental impact and complies with the maximum permissible radiofrequency electromagnetic exposure limits for controlled and uncontrolled environments). Unless the applicant can determine compliance through the use of the RF worksheets in Appendix A, an Exhibit is required. By checking "Yes" above, the applicant also certifies that it, in coordination with other users of the site, will reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from radiofrequency electromagnetic exposure in excess of FCC guidelines.	<input checked="" type="radio"/> Yes <input type="radio"/> No See Explanation in [Exhibit 17]

PREPARER'S CERTIFICATION ON PAGE 4 MUST BE COMPLETED AND SIGNED.

Section IV -- Noncommercial Educational Point System Factors - -New and Major Change Applications on Reserved Channels. Only (used to select among mutually exclusive applications for new stations and major modifications) NOTE: Applicants will not received any additional points for amendments made after the close of the application filing window.

Preliminary Matter: Does this application provide fill-in service only?		<input type="radio"/> Yes <input type="radio"/> No
1.	Established Local Applicant: Applicant certifies that for at least the 24 months immediately prior to application, and continuing through the present, it qualifies as a local applicant pursuant to 47 C.F.R. Section 73.7000, that its governing documents require that such localism be maintained, and that it has placed documentation of its qualifications as an established local applicant in a local public inspection file and has submitted to the Commission copies of the documentation.	<input type="radio"/> Yes <input type="radio"/> No
2.	Diversity of Ownership: Applicant certifies that the principal community (city grade) contour of the proposed station does not overlap the principal community contour of any other authorized radio station (including AM, FM, and non-fill-in FM translator stations, commercial or noncommercial) in which any party to the application has an attributable interest as defined in 47 C.F.R. Section 73.3555, that its governing documents require that such diversity qualification in a local public inspection file and has submitted to the Commission copies of the documentation.	<input type="radio"/> Yes <input type="radio"/> No
3.	State-wide Network: Applicant certifies that (a) it has NOT claimed a credit for diversity of ownership above; (b) it is one of the three specific types of organizations described in 47 C.F.R. Section 73.7003(b)(3); and (c) it has placed documentation of its qualifications in a local public inspection file and has submitted to the Commission copies of the documentation.	<input type="radio"/> Yes <input type="radio"/> No
4.	Technical Parameters: Applicant certifies that the numbers in the boxes below accurately reflect the new (increased) area and population that its proposal would serve with a 60 dBu signal measured in accordance with the standard predicted contours in 47 C.F.R. Section 73.713(c) and that it has documented the basis for its calculations in the local public inspection file and has submitted copies to the Commission. Major modification applicants should include the area of proposed increase only (exclude the station's existing service area). (Points, if any, will be determined by FCC)	<input type="radio"/> Yes <input type="radio"/> No
	New (increased) area served in square kilometers (excluding areas of water):	
	Population served based on the most recent census block data from the United States Bureau of Census using the centroid method:	
Tie Breakers		
5.	Existing Authorizations. a. By placing a number in the box, the applicant certifies that it and any persons and organizations with attributable interests in the applicant pursuant to 47 C.F.R. Section 73.3555 have, as of the date filing, existing authorizations for the following number of relevant broadcast stations. FM translator applicants should count all attributable full service radio stations, AM and FM, commercial and noncommercial and FM translator stations other than fill-in stations. (number of attributable commercial and non-commercial licenses and construction permits) b. (Fill-in Applicants Only.) By placing a number in the box, the applicant certifies that, in addition to the station identified in 5(a), it and any persons and organizations with attributable interests in the applicant pursuant to 47 C.F.R. Section 73.3555 have, as of the date filing, existing authorizations for the following number of FM translators.	
6.	Pending Applications. a. By placing a number in the box, the applicant certifies that it and any persons and organizations with attributable interests in the applicant pursuant to 47 C.F.R. Section 73.3555 have, as of the date filing, pending applications for new or major changes to the following number of relevant broadcast stations, AM and FM, commercial and non-commercial and FM translator stations other than fill-in stations. (number of attributable commercial and non-commercial applications) b. (Fill-in Applicants Only.) By placing a number in the box, the applicant certifies that, in addition to the station identified in 5(a), it and any persons and organizations with attributable interests in the applicant pursuant to 47 C.F.R. Section 73.3555 have, as of the date of filing, existing authorizations for the following number of FM translators.	

Section VI -- Certification

I certify that the statements in this application are true, complete, and correct to the best of my knowledge and belief, and are made in

good faith. I acknowledge that all certifications and attached Exhibits are considered material representations. I hereby waive any claim to the use of any particular frequency as against the regulatory power of the United States because of the previous use of the same, whether by license or otherwise, and request an authorization in accordance with this application. (See Section 304 of the Communications Act of 1934, as amended.)

Typed or Printed Name of Person Signing	Typed or Printed Title of Person Signing
Signature	Date

Exhibits

Exhibit 11

Description: SEE EXHIBIT 17

Attachment 11

Exhibit 12

Description: SEE EXHIBIT 17

Attachment 12

Exhibit 13

Description: SEE EXHIBIT 17

Attachment 13

Exhibit 17

Description: TECHNICAL SUMMARY

BOOSTER COVERAGE COMPLIANCE - FIGURE 1 IS A MAP DEMONSTRATING THAT THE PROPOSED BOOSTER 60 DBU CONTOUR IS WITHIN THE 60 DBU CONTOUR OF FM MAIN STATION WWOJ ON CHANNEL 256A AT AVON PARK, FL. CONTOUR LOCATIONS BASED ON USGS 30-SECOND TERRAIN DATABASE.

SECTION 74.1204 COMPLIANCE THERE ARE NO INTERMEDIATE FREQUENCY (IF) ALLOCATIONS OF CONCERN. FURTHERMORE, AS DEMONSTRATED ON FIGURE 2, CONTOUR PROTECTION IS PROVIDED TO FIRST ADJACENT CHANNEL STATIONS WBCG ON CHANNEL 255A AT MURDOCK, FL, WJBX ON CHANNEL 257C2 AT FORT MEYERS BEACH, FL, WMMO ON CHANNEL 255C2 AT ORLANDO, FL AND WLRQ ON CHANNEL 257C2 AT COCOA, FL. CONTOUR LOCATIONS BASED ON USGS 30-SECOND TERRAIN DATABASE.

FIGURE 3, ATTACHED, PROVIDES ANTENNA SYSTEM INFORMATION.

RFR COMPLIANCE - THE PROPOSED FACILITIES WERE EVALUATED IN TERMS OF POTENTIAL RADIO FREQUENCY (RF) ENERGY EXPOSURE AT GROUND LEVEL TO WORKERS AND THE GENERAL PUBLIC. THE RADIATION CENTER FOR THE PROPOSED BOOSTER ANTENNA IS LOCATED 38 METERS ABOVE GROUND LEVEL ON THE EXISTING TOWER. THE MAXIMUM ERP IS 3 KW (VERTICAL POLARIZATION). A CONSERVATIVE VERTICAL PLANE RELATIVE FIELD VALUE OF 0.1 (FOR ANGLES BELOW 60 DEGREES DOWNWARD) IS PRESUMED FOR THE ANTENNA'S DOWNWARD RADIATION (SEE PAGE 5 OF FIGURE 3 ATTACHED). THE CALCULATED POWER DENSITY AT A POINT 2 METERS ABOVE GROUND LEVEL IS 0.00077 MW/CM2. THIS IS 0.38% OF THE FCC'S RECOMMENDED LIMIT OF 0.2 MW/CM2 FOR FM RADIO STATIONS FOR AN UNCONTROLLED ENVIRONMENT. THEREFORE, BASED ON THE RESPONSIBILITY THRESHOLD OF 5%, THE PROPOSAL WILL COMPLY WITH THE RF EMISSION RULES.

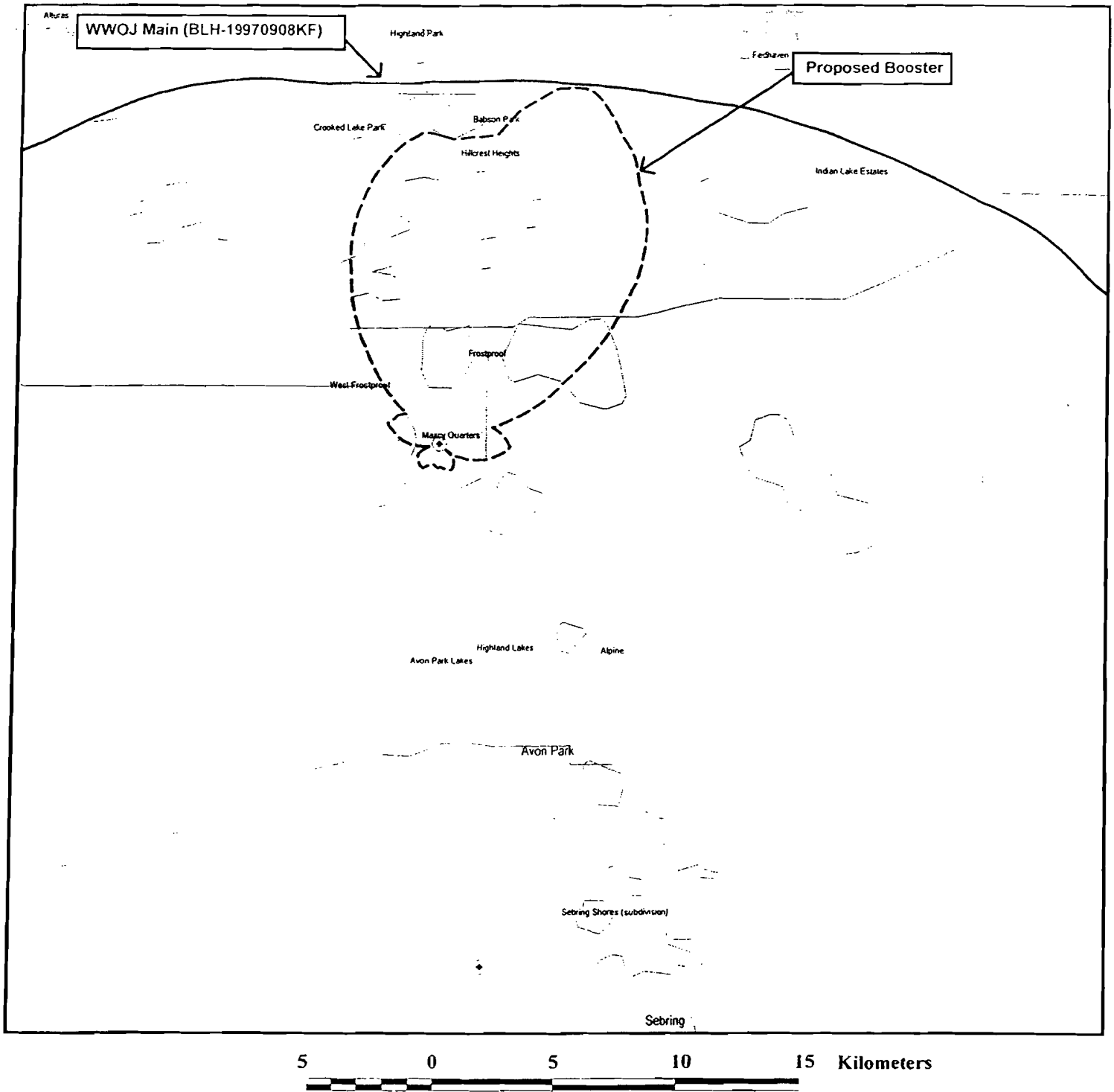
ACCESS TO THE TRANSMITTING SITE IS RESTRICTED AND APPROPRIATELY MARKED WITH RFR WARNING SIGNS. FURTHERMORE, AS THIS IS A MULTI-USER SITE, A PROTOCOL WILL BE IN EFFECT WITH THE OTHER STATIONS IN THE EVENT THAT WORKERS OR OTHER AUTHORIZED PERSONNEL ENTER THE RESTRICTED AREA OR CLIMB THE TOWER TO ENSURE THAT APPROPRIATE MEASURES WILL BE TAKEN TO ASSURE WORKER SAFETY WITH RESPECT TO RADIO FREQUENCY RADIATION EXPOSURE. SUCH MEASURES INCLUDE REDUCING THE AVERAGE EXPOSURE

BY SPREADING OUT THE WORK OVER A LONGER PERIOD OF TIME, WEARING ACCEPTED RFR PROTECTIVE CLOTHING AND/OR RFR EXPOSURE. FURTHERMORE, IT IS NOTED THAT THIS TECHNICAL EXHIBIT ONLY ADDRESSES THE POTENTIAL FOR RADIO FREQUENCY ELECTROMAGNETIC FIELD EXPOSURE. ALL OTHER ASPECTS OF THE ENVIRONMENTAL PROCESSING ANALYSIS WILL BE OR ALREADY HAS BEEN PROVIDED TO THE FCC BY THE TOWER OWNER AS PART OF THE TOWER REGISTRATION PROCESS.

Attachment 17

Description
FIGURES - FROSTPROOF BOOSTER

Figure 1

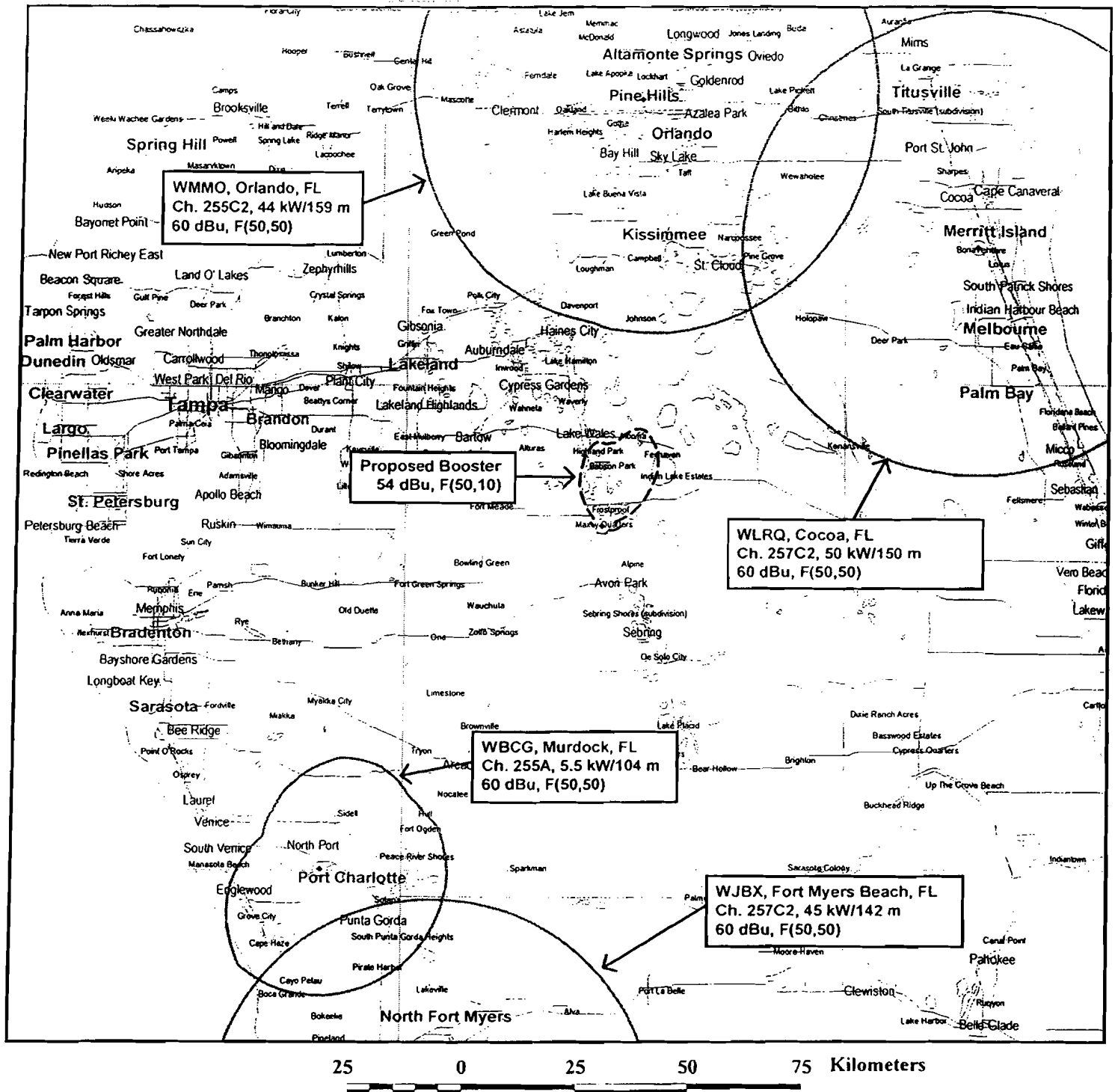


MAIN AND BOOSTER 60 DBU CONTOURS

NEW FM BOOSTER STATION
FROSTPROOF, FLORIDA
CH 256 3 KW (MAX-DA)

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

Figure 2



COMPLIANCE WITH SECTION 74.1204

NEW FM BOOSTER STATION
FROSTPROOF, FLORIDA
CH 256 3 KW (MAX-DA)

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

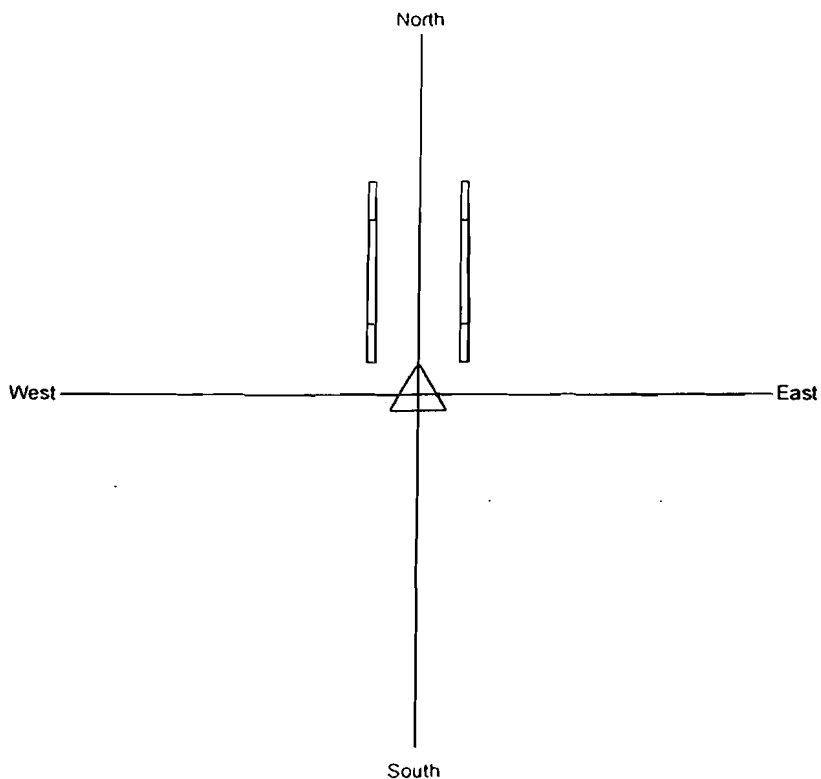
TX Station: 000V2011 Lazer Opus Project

Frequency: 99.10 MHz

Gain solid integration : enabled

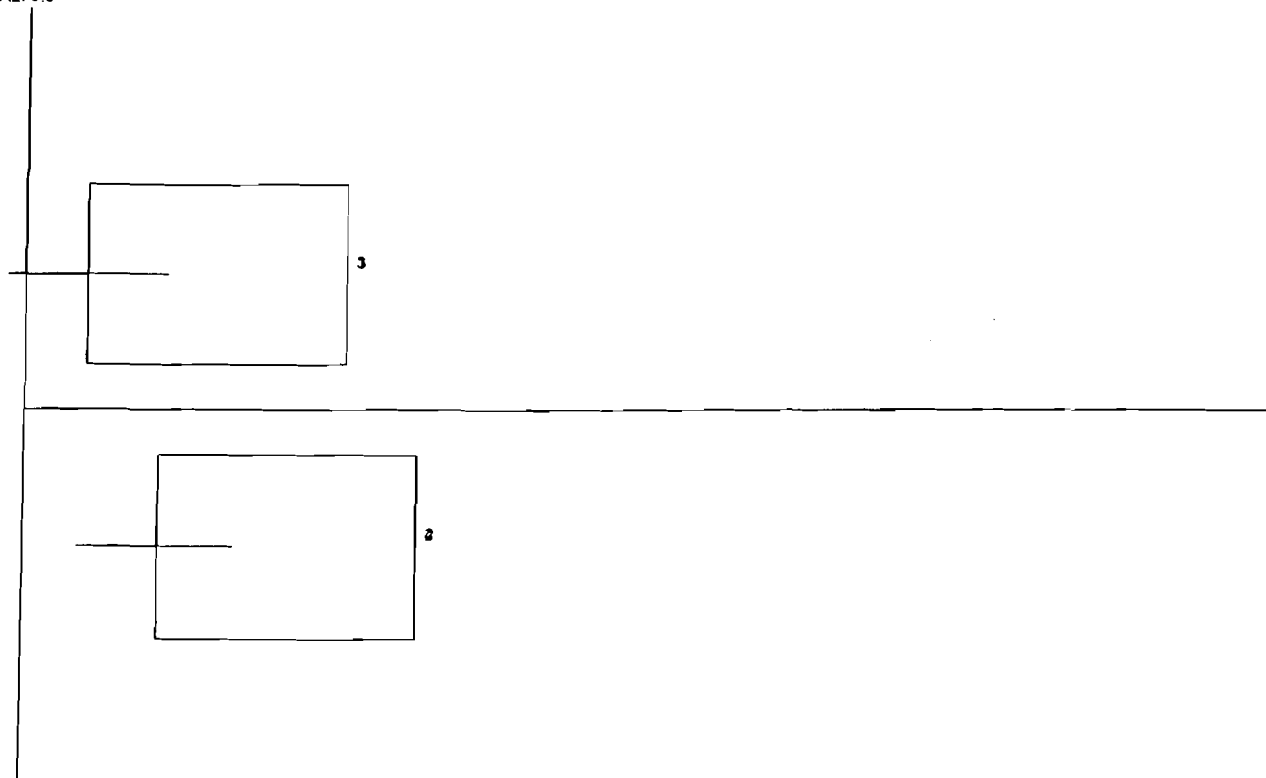
Site Name: Heartland Broadcasting Corp

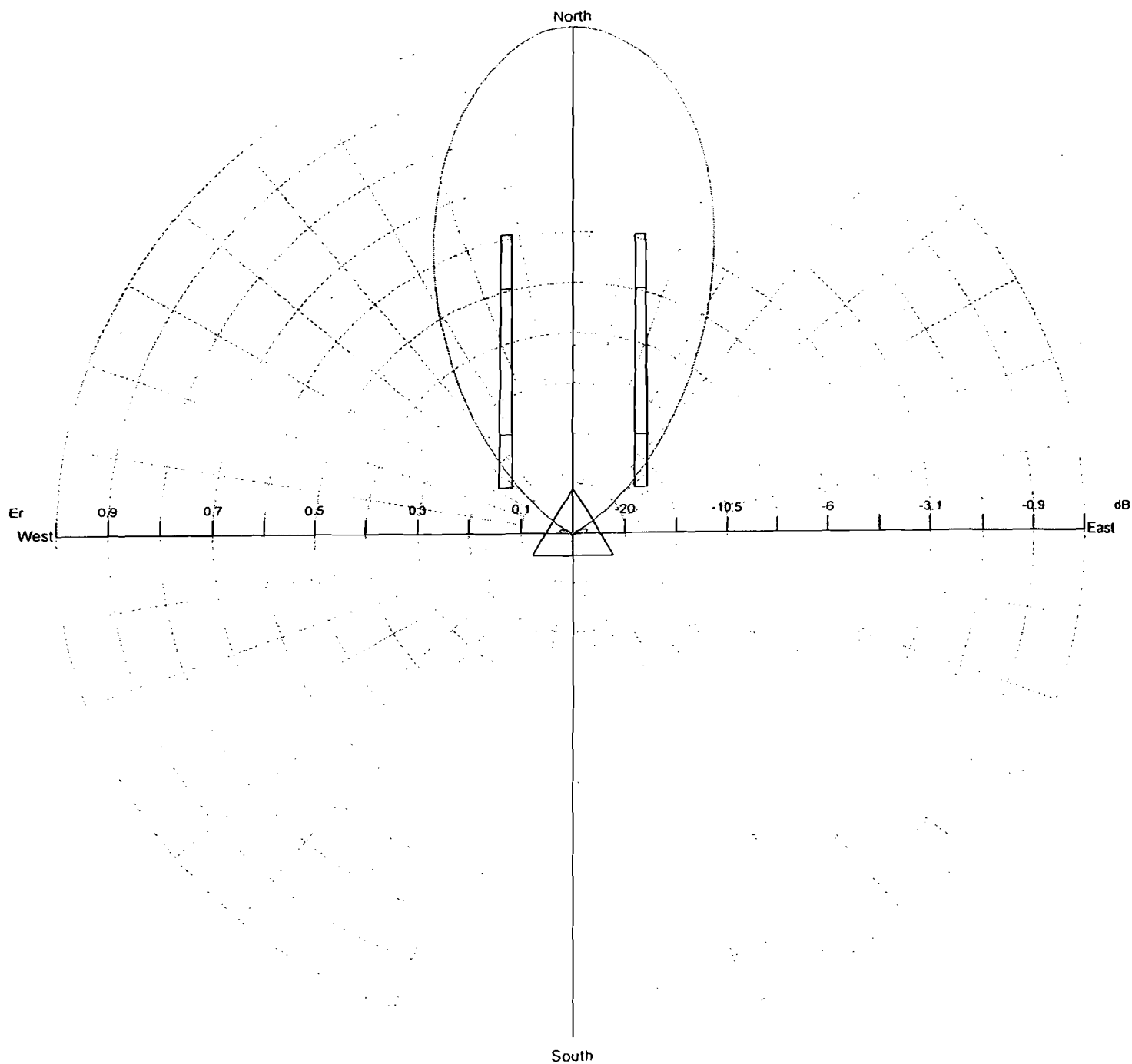
Plan of antenna system



Side of antenna system

Az. 0.0°





— 0.3° depres. (Total Antenna), Gain (dBd): 12.4

ERP T.Max(KW): 4.7772 ERP E.Max(KW): 3.2883

Frequency: 99.10 MHz

Gain solid integration : enabled

Site Name: Heartland Broadcasting Corp

Horizontal diagram at 0.3° depres. (Total Antenna)

Az (°)	Er (%)	ERP (KW)	Az (°)	Er (%)	ERP (KW)	Az (°)	Er (%)	ERP (KW)
0.0	100.0	3.288	60.0	1.7	0.001	120.0	0.1	0.001
1.0	99.9	3.282	61.0	1.0	0.001	121.0	0.2	0.001
2.0	99.7	3.268	62.0	0.5	0.001	122.0	0.2	0.001
3.0	99.4	3.249	63.0	0.1	0.001	123.0	0.2	0.001
4.0	98.9	3.217	64.0	0.5	0.001	124.0	0.3	0.001
5.0	98.3	3.180	65.0	0.9	0.001	125.0	0.3	0.001
6.0	97.7	3.137	66.0	1.3	0.001	126.0	0.3	0.001
7.0	96.8	3.084	67.0	1.6	0.001	127.0	0.3	0.001
8.0	95.9	3.026	68.0	1.9	0.001	128.0	0.4	0.001
9.0	94.9	2.963	69.0	2.1	0.001	129.0	0.4	0.001
10.0	93.8	2.892	70.0	2.3	0.002	130.0	0.4	0.001
11.0	92.6	2.817	71.0	2.4	0.002	131.0	0.4	0.001
12.0	91.3	2.739	72.0	2.6	0.002	132.0	0.4	0.001
13.0	89.7	2.646	73.0	2.7	0.002	133.0	0.5	0.001
14.0	88.1	2.552	74.0	2.7	0.002	134.0	0.5	0.001
15.0	86.4	2.456	75.0	2.8	0.003	135.0	0.5	0.001
16.0	84.6	2.356	76.0	2.8	0.003	136.0	0.5	0.001
17.0	82.8	2.255	77.0	2.8	0.003	137.0	0.5	0.001
18.0	80.9	2.154	78.0	2.8	0.003	138.0	0.5	0.001
19.0	78.8	2.042	79.0	2.8	0.003	139.0	0.6	0.001
20.0	76.6	1.931	80.0	2.7	0.002	140.0	0.6	0.001
21.0	74.4	1.823	81.0	2.7	0.002	141.0	0.6	0.001
22.0	72.2	1.712	82.0	2.6	0.002	142.0	0.6	0.001
23.0	69.8	1.604	83.0	2.5	0.002	143.0	0.6	0.001
24.0	67.5	1.499	84.0	2.4	0.002	144.0	0.6	0.001
25.0	65.1	1.392	85.0	2.3	0.002	145.0	0.6	0.001
26.0	62.6	1.289	86.0	2.2	0.002	146.0	0.6	0.001
27.0	60.2	1.191	87.0	2.1	0.001	147.0	0.6	0.001
28.0	57.7	1.096	88.0	2.0	0.001	148.0	0.6	0.001
29.0	55.3	1.006	89.0	1.9	0.001	149.0	0.6	0.001
30.0	52.9	0.920	90.0	1.8	0.001	150.0	0.6	0.001
31.0	50.4	0.837	91.0	1.8	0.001	151.0	0.5	0.001
32.0	48.0	0.758	92.0	1.7	0.001	152.0	0.5	0.001
33.0	45.6	0.685	93.0	1.6	0.001	153.0	0.5	0.001
34.0	43.3	0.615	94.0	1.5	0.001	154.0	0.5	0.001
35.0	40.9	0.551	95.0	1.4	0.001	155.0	0.5	0.001
36.0	38.6	0.491	96.0	1.3	0.001	156.0	0.5	0.001
37.0	36.3	0.433	97.0	1.3	0.001	157.0	0.5	0.001
38.0	34.0	0.380	98.0	1.2	0.001	158.0	0.5	0.001
39.0	31.8	0.332	99.0	1.1	0.001	159.0	0.5	0.001
40.0	29.6	0.288	100.0	1.0	0.001	160.0	0.5	0.001
41.0	27.5	0.249	101.0	1.0	0.001	161.0	0.4	0.001
42.0	25.5	0.213	102.0	0.9	0.001	162.0	0.4	0.001
43.0	23.5	0.181	103.0	0.8	0.001	163.0	0.4	0.001
44.0	21.6	0.153	104.0	0.7	0.001	164.0	0.4	0.001
45.0	19.7	0.128	105.0	0.7	0.001	165.0	0.4	0.001
46.0	18.0	0.107	106.0	0.6	0.001	166.0	0.4	0.001
47.0	16.4	0.088	107.0	0.5	0.001	167.0	0.4	0.001
48.0	14.8	0.072	108.0	0.5	0.001	168.0	0.4	0.001
49.0	13.3	0.058	109.0	0.4	0.001	169.0	0.4	0.001
50.0	11.9	0.046	110.0	0.4	0.001	170.0	0.4	0.001
51.0	10.5	0.036	111.0	0.3	0.001	171.0	0.4	0.001
52.0	9.3	0.028	112.0	0.2	0.001	172.0	0.4	0.001
53.0	8.0	0.021	113.0	0.2	0.001	173.0	0.4	0.001
54.0	6.9	0.016	114.0	0.1	0.001	174.0	0.4	0.001
55.0	5.8	0.011	115.0	0.1	0.001	175.0	0.4	0.001
56.0	4.9	0.008	116.0	0.1	0.001	176.0	0.4	0.001
57.0	4.0	0.005	117.0	0.1	0.001	177.0	0.4	0.001
58.0	3.1	0.003	118.0	0.1	0.001	178.0	0.3	0.001
59.0	2.4	0.002	119.0	0.1	0.001	179.0	0.3	0.001

Frequency: 99.10 MHz

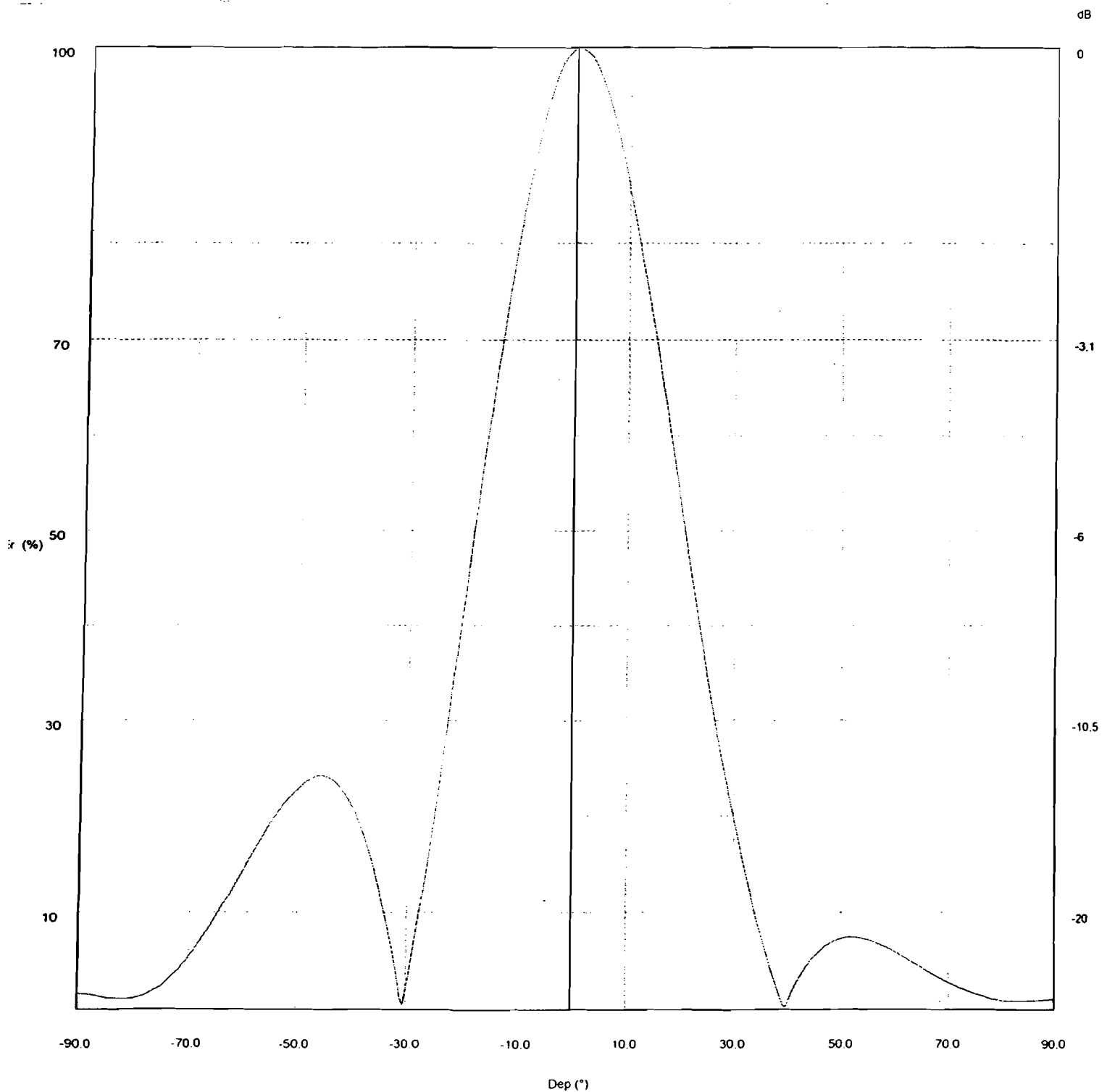
Gain solid integration : enabled

Site Name: Heartland Broadcasting Corp

Horizontal diagram at 0.3° depres. (Total Antenna)

Az (°)	Er (%)	ERP (KW)	Az (°)	Er (%)	ERP (KW)	Az (°)	Er (%)	ERP (KW)
180.0	0.3	0.001	240.0	0.1	0.001	300.0	1.6	0.001
181.0	0.3	0.001	241.0	0.1	0.001	301.0	2.3	0.002
182.0	0.3	0.001	242.0	0.1	0.001	302.0	3.1	0.003
183.0	0.3	0.001	243.0	0.1	0.001	303.0	3.9	0.005
184.0	0.3	0.001	244.0	0.1	0.001	304.0	4.8	0.008
185.0	0.3	0.001	245.0	0.1	0.001	305.0	5.8	0.011
186.0	0.3	0.001	246.0	0.2	0.001	306.0	6.8	0.015
187.0	0.3	0.001	247.0	0.2	0.001	307.0	7.9	0.020
188.0	0.3	0.001	248.0	0.2	0.001	308.0	9.0	0.027
189.0	0.3	0.001	249.0	0.3	0.001	309.0	10.2	0.034
190.0	0.3	0.001	250.0	0.3	0.001	310.0	11.6	0.044
191.0	0.3	0.001	251.0	0.4	0.001	311.0	13.0	0.056
192.0	0.4	0.001	252.0	0.5	0.001	312.0	14.5	0.069
193.0	0.4	0.001	253.0	0.5	0.001	313.0	16.1	0.085
194.0	0.4	0.001	254.0	0.6	0.001	314.0	17.7	0.103
195.0	0.4	0.001	255.0	0.6	0.001	315.0	19.5	0.125
196.0	0.4	0.001	256.0	0.7	0.001	316.0	21.3	0.150
197.0	0.4	0.001	257.0	0.8	0.001	317.0	23.3	0.178
198.0	0.4	0.001	258.0	0.9	0.001	318.0	25.3	0.211
199.0	0.4	0.001	259.0	0.9	0.001	319.0	27.3	0.246
200.0	0.5	0.001	260.0	1.0	0.001	320.0	29.4	0.285
201.0	0.5	0.001	261.0	1.1	0.001	321.0	31.6	0.328
202.0	0.5	0.001	262.0	1.2	0.001	322.0	33.6	0.371
203.0	0.5	0.001	263.0	1.2	0.001	323.0	35.7	0.418
204.0	0.5	0.001	264.0	1.3	0.001	324.0	37.8	0.469
205.0	0.5	0.001	265.0	1.4	0.001	325.0	40.0	0.527
206.0	0.5	0.001	266.0	1.4	0.001	326.0	42.3	0.589
207.0	0.5	0.001	267.0	1.5	0.001	327.0	44.7	0.656
208.0	0.5	0.001	268.0	1.6	0.001	328.0	47.0	0.726
209.0	0.5	0.001	269.0	1.6	0.001	329.0	49.3	0.800
210.0	0.5	0.001	270.0	1.7	0.001	330.0	51.7	0.879
211.0	0.5	0.001	271.0	1.8	0.001	331.0	54.1	0.963
212.0	0.5	0.001	272.0	1.9	0.001	332.0	56.6	1.052
213.0	0.5	0.001	273.0	2.0	0.001	333.0	59.0	1.146
214.0	0.5	0.001	274.0	2.1	0.001	334.0	61.4	1.238
215.0	0.5	0.001	275.0	2.2	0.002	335.0	63.7	1.333
216.0	0.5	0.001	276.0	2.2	0.002	336.0	66.0	1.432
217.0	0.5	0.001	277.0	2.3	0.002	337.0	68.3	1.532
218.0	0.5	0.001	278.0	2.4	0.002	338.0	70.5	1.634
219.0	0.5	0.001	279.0	2.5	0.002	339.0	72.7	1.739
220.0	0.5	0.001	280.0	2.5	0.002	340.0	74.9	1.846
221.0	0.5	0.001	281.0	2.5	0.002	341.0	77.1	1.954
222.0	0.5	0.001	282.0	2.5	0.002	342.0	79.2	2.065
223.0	0.5	0.001	283.0	2.5	0.002	343.0	81.2	2.167
224.0	0.5	0.001	284.0	2.5	0.002	344.0	83.1	2.270
225.0	0.5	0.001	285.0	2.5	0.002	345.0	84.9	2.373
226.0	0.4	0.001	286.0	2.4	0.002	346.0	86.7	2.470
227.0	0.4	0.001	287.0	2.4	0.002	347.0	88.3	2.566
228.0	0.4	0.001	288.0	2.3	0.002	348.0	89.9	2.660
229.0	0.4	0.001	289.0	2.2	0.002	349.0	91.4	2.749
230.0	0.4	0.001	290.0	2.1	0.001	350.0	92.8	2.835
231.0	0.4	0.001	291.0	2.0	0.001	351.0	94.2	2.917
232.0	0.4	0.001	292.0	1.8	0.001	352.0	95.3	2.988
233.0	0.3	0.001	293.0	1.5	0.001	353.0	96.4	3.055
234.0	0.3	0.001	294.0	1.2	0.001	354.0	97.4	3.118
235.0	0.3	0.001	295.0	0.9	0.001	355.0	98.2	3.171
236.0	0.3	0.001	296.0	0.5	0.001	356.0	98.9	3.218
237.0	0.2	0.001	297.0	0.0	0.001	357.0	99.6	3.260
238.0	0.2	0.001	298.0	0.5	0.001	358.0	99.8	3.276
239.0	0.2	0.001	299.0	1.0	0.001	359.0	100.0	3.285

Vertical diagram at an azimuth of 0.0° degrees



—— 0.0° Az. (Total Antenna), Gain (dBd): 12.4

ERP T.Max(KW): 4.7788 ERP E.Max(KW): 3.2894

Vertical diagram at an azimuth of 0.0° degrees

Dep (°)	Er (%)	ERP (KW)	Dep (°)	Er (%)	ERP (KW)	Dep (°)	Er (%)	ERP (KW)
-90.0	1.6	0.001	-60.0	14.5	0.069	-30.0	2.1	0.002
-89.5	1.6	0.001	-59.5	15.0	0.074	-29.5	3.9	0.005
-89.0	1.6	0.001	-59.0	15.6	0.080	-29.0	5.7	0.011
-88.5	1.5	0.001	-58.5	16.0	0.085	-28.5	7.5	0.019
-88.0	1.5	0.001	-58.0	16.5	0.090	-28.0	9.4	0.029
-87.5	1.5	0.001	-57.5	17.0	0.095	-27.5	11.3	0.042
-87.0	1.5	0.001	-57.0	17.4	0.100	-27.0	13.3	0.058
-86.5	1.4	0.001	-56.5	17.9	0.106	-26.5	15.3	0.077
-86.0	1.4	0.001	-56.0	18.4	0.112	-26.0	17.3	0.098
-85.5	1.3	0.001	-55.5	18.9	0.117	-25.5	19.3	0.122
-85.0	1.2	0.001	-55.0	19.3	0.123	-25.0	21.3	0.150
-84.5	1.2	0.001	-54.5	19.8	0.128	-24.5	23.4	0.181
-84.0	1.1	0.001	-54.0	20.2	0.134	-24.0	25.5	0.215
-83.5	1.1	0.001	-53.5	20.6	0.139	-23.5	27.7	0.252
-83.0	1.1	0.001	-53.0	20.9	0.144	-23.0	29.8	0.292
-82.5	1.1	0.001	-52.5	21.3	0.149	-22.5	32.0	0.336
-82.0	1.1	0.001	-52.0	21.6	0.154	-22.0	34.1	0.384
-81.5	1.1	0.001	-51.5	21.9	0.158	-21.5	36.3	0.434
-81.0	1.1	0.001	-51.0	22.2	0.162	-21.0	38.5	0.489
-80.5	1.1	0.001	-50.5	22.6	0.167	-20.5	40.7	0.546
-80.0	1.2	0.001	-50.0	22.9	0.172	-20.0	42.9	0.607
-79.5	1.2	0.001	-49.5	23.1	0.176	-19.5	45.2	0.671
-79.0	1.3	0.001	-49.0	23.4	0.180	-19.0	47.4	0.738
-78.5	1.4	0.001	-48.5	23.6	0.183	-18.5	49.6	0.809
-78.0	1.4	0.001	-48.0	23.8	0.186	-18.0	51.8	0.883
-77.5	1.6	0.001	-47.5	23.9	0.188	-17.5	53.9	0.957
-77.0	1.8	0.001	-47.0	24.0	0.190	-17.0	56.1	1.034
-76.5	1.9	0.001	-46.5	24.1	0.191	-16.5	58.2	1.114
-76.0	2.1	0.001	-46.0	24.1	0.192	-16.0	60.3	1.196
-75.5	2.2	0.002	-45.5	24.1	0.192	-15.5	62.4	1.281
-75.0	2.4	0.002	-45.0	24.1	0.191	-15.0	64.5	1.367
-74.5	2.6	0.002	-44.5	24.0	0.189	-14.5	66.5	1.453
-74.0	2.9	0.003	-44.0	23.8	0.186	-14.0	68.5	1.541
-73.5	3.2	0.003	-43.5	23.6	0.183	-13.5	70.4	1.631
-73.0	3.4	0.004	-43.0	23.3	0.179	-13.0	72.3	1.721
-72.5	3.7	0.005	-42.5	23.0	0.174	-12.5	74.2	1.813
-72.0	4.0	0.005	-42.0	22.7	0.169	-12.0	76.1	1.905
-71.5	4.3	0.006	-41.5	22.3	0.163	-11.5	77.8	1.993
-71.0	4.7	0.007	-41.0	21.9	0.157	-11.0	79.5	2.081
-70.5	5.0	0.008	-40.5	21.4	0.150	-10.5	81.2	2.168
-70.0	5.4	0.010	-40.0	20.8	0.143	-10.0	82.8	2.256
-69.5	5.8	0.011	-39.5	20.2	0.134	-9.5	84.4	2.342
-69.0	6.1	0.012	-39.0	19.6	0.126	-9.0	85.9	2.428
-68.5	6.6	0.014	-38.5	18.8	0.117	-8.5	87.3	2.507
-68.0	7.0	0.016	-38.0	18.0	0.107	-8.0	88.6	2.584
-67.5	7.4	0.018	-37.5	17.2	0.097	-7.5	89.9	2.660
-67.0	7.8	0.020	-37.0	16.3	0.087	-7.0	91.2	2.733
-66.5	8.3	0.022	-36.5	15.3	0.077	-6.5	92.3	2.805
-66.0	8.7	0.025	-36.0	14.3	0.068	-6.0	93.5	2.874
-65.5	9.2	0.028	-35.5	13.3	0.058	-5.5	94.4	2.931
-65.0	9.6	0.031	-35.0	12.2	0.049	-5.0	95.3	2.986
-64.5	10.1	0.034	-34.5	11.1	0.040	-4.5	96.1	3.038
-64.0	10.6	0.037	-34.0	9.8	0.032	-4.0	96.9	3.086
-63.5	11.0	0.040	-33.5	8.6	0.024	-3.5	97.6	3.131
-63.0	11.5	0.043	-33.0	7.2	0.017	-3.0	98.2	3.172
-62.5	12.0	0.047	-32.5	5.8	0.011	-2.5	98.7	3.201
-62.0	12.5	0.052	-32.0	4.3	0.006	-2.0	99.0	3.227
-61.5	13.0	0.056	-31.5	2.8	0.003	-1.5	99.4	3.248
-61.0	13.5	0.060	-31.0	1.2	0.001	-1.0	99.6	3.266
-60.5	14.0	0.065	-30.5	0.5	0.001	-0.5	99.9	3.280

Vertical diagram at an azimuth of 0.0° degrees

Dep (°)	Er (%)	ERP (KW)	Dep (°)	Er (%)	ERP (KW)	Dep (°)	Er (%)	ERP (KW)
0.0	100.0	3.289	30.0	19.7	0.128	60.0	5.9	0.011
0.5	100.0	3.287	30.5	18.3	0.110	60.5	5.8	0.011
1.0	99.9	3.280	31.0	16.9	0.094	61.0	5.6	0.010
1.5	99.7	3.270	31.5	15.6	0.080	61.5	5.5	0.010
2.0	99.5	3.256	32.0	14.3	0.068	62.0	5.3	0.009
2.5	99.2	3.238	32.5	13.1	0.056	62.5	5.1	0.009
3.0	98.9	3.216	33.0	11.9	0.047	63.0	4.9	0.008
3.5	98.3	3.182	33.5	10.7	0.038	63.5	4.8	0.008
4.0	97.8	3.144	34.0	9.6	0.030	64.0	4.6	0.007
4.5	97.1	3.103	34.5	8.5	0.024	64.5	4.5	0.007
5.0	96.4	3.059	35.0	7.5	0.018	65.0	4.3	0.006
5.5	95.7	3.012	35.5	6.5	0.014	65.5	4.1	0.006
6.0	94.9	2.962	36.0	5.5	0.010	66.0	4.0	0.005
6.5	93.9	2.903	36.5	4.6	0.007	66.5	3.8	0.005
7.0	92.9	2.841	37.0	3.7	0.004	67.0	3.7	0.004
7.5	91.9	2.778	37.5	2.8	0.003	67.5	3.5	0.004
8.0	90.8	2.712	38.0	2.0	0.001	68.0	3.4	0.004
8.5	89.7	2.645	38.5	1.2	0.000	68.5	3.2	0.003
9.0	88.5	2.577	39.0	0.5	0.000	69.0	3.0	0.003
9.5	87.2	2.500	39.5	0.2	0.000	69.5	2.9	0.003
10.0	85.8	2.422	40.0	0.8	0.000	70.0	2.8	0.003
10.5	84.4	2.344	40.5	1.4	0.001	70.5	2.7	0.002
11.0	83.0	2.266	41.0	2.0	0.001	71.0	2.5	0.002
11.5	81.5	2.187	41.5	2.6	0.002	71.5	2.4	0.002
12.0	80.1	2.108	42.0	3.1	0.003	72.0	2.3	0.002
12.5	78.5	2.026	42.5	3.5	0.004	72.5	2.2	0.002
13.0	76.9	1.945	43.0	4.0	0.005	73.0	2.0	0.001
13.5	75.3	1.864	43.5	4.4	0.006	73.5	1.9	0.001
14.0	73.7	1.785	44.0	4.8	0.008	74.0	1.8	0.001
14.5	72.0	1.706	44.5	5.2	0.009	74.5	1.7	0.001
15.0	70.4	1.628	45.0	5.5	0.010	75.0	1.6	0.001
15.5	68.6	1.549	45.5	5.8	0.011	75.5	1.5	0.001
16.0	66.9	1.471	46.0	6.1	0.012	76.0	1.5	0.001
16.5	65.1	1.395	46.5	6.3	0.013	76.5	1.4	0.001
17.0	63.4	1.321	47.0	6.5	0.014	77.0	1.3	0.001
17.5	61.6	1.249	47.5	6.7	0.015	77.5	1.2	0.001
18.0	59.9	1.178	48.0	6.9	0.015	78.0	1.1	0.001
18.5	58.0	1.108	48.5	7.0	0.016	78.5	1.1	0.001
19.0	56.2	1.039	49.0	7.1	0.017	79.0	1.1	0.001
19.5	54.4	0.973	49.5	7.2	0.017	79.5	1.0	0.001
20.0	52.6	0.910	50.0	7.3	0.018	80.0	1.0	0.001
20.5	50.8	0.848	50.5	7.4	0.018	80.5	0.9	0.001
21.0	49.0	0.790	51.0	7.4	0.018	81.0	0.9	0.001
21.5	47.2	0.732	51.5	7.4	0.018	81.5	0.9	0.001
22.0	45.4	0.677	52.0	7.4	0.018	82.0	0.9	0.001
22.5	43.6	0.625	52.5	7.4	0.018	82.5	0.9	0.001
23.0	41.8	0.575	53.0	7.4	0.018	83.0	0.9	0.001
23.5	40.1	0.528	53.5	7.3	0.018	83.5	0.8	0.001
24.0	38.4	0.484	54.0	7.3	0.017	84.0	0.8	0.001
24.5	36.6	0.440	54.5	7.2	0.017	84.5	0.9	0.001
25.0	34.8	0.399	55.0	7.1	0.017	85.0	0.9	0.001
25.5	33.1	0.361	55.5	7.1	0.016	85.5	0.9	0.001
26.0	31.5	0.326	56.0	7.0	0.016	86.0	0.9	0.001
26.5	29.8	0.292	56.5	6.8	0.015	86.5	0.9	0.001
27.0	28.2	0.262	57.0	6.7	0.015	87.0	0.9	0.001
27.5	26.7	0.235	57.5	6.6	0.014	87.5	1.0	0.001
28.0	25.3	0.210	58.0	6.5	0.014	88.0	1.0	0.001
28.5	23.8	0.187	58.5	6.4	0.013	88.5	1.0	0.001
29.0	22.4	0.165	59.0	6.2	0.013	89.0	1.0	0.001
29.5	21.0	0.146	59.5	6.1	0.012	89.5	1.0	0.001

Geometr. and electrical data of Antenna System

	Power (%)	Tilt (°)	Az. (°/N)	Phase (°)	V dist (m)	E.C. (cm)	N.C (cm)	Rot. (1÷4)	Type (1÷2)	L cables (cm)	Car. phase (°)
1	25.000	0	0	0 +0.0	1.35	-85.0	60.0	1	1	420.0	0.0
2	25.000	0	0	0 -88.0	-1.35	-85.0	130.0	1	1	485.9	-88.0
3	25.000	0	0	0 +0.0	1.35	85.0	60.0	1	1	420.0	0.0
4	25.000	0	0	0 -88.0	-1.35	85.0	130.0	1	1	485.9	-88.0

ATTACHMENT F

FEDERAL COMMUNICATIONS COMMISSION
445 TWELFTH STREET SW
WASHINGTON DC 20554

MEDIA BUREAU
AUDIO DIVISION
APPLICATION STATUS: (202) 418-2730
HOME PAGE: www.fcc.gov/mb/audio/

ENGINEER: CHARLES N. (NORM) MILLER
TELEPHONE: (202) 418-2767
FACSIMILE: (202) 418-1410
E-MAIL: charles.miller@fcc.gov

September 28, 2011

Aaron P. Shainis, Esq.
Shainis & Peltzman, Chartered
1850 M Street, NW, Suite 240
Washington, DC 20036

In re: Cohan Radio Group, Inc.
WWOJ (FM), Avon Park, Florida
Facility Identification Number: 27199
Application for Experimental Authorization

Dear Counsel:

The staff has before it a request for an Experimental Authorization, filed July 19, 2011, and supplemented on September 22, 2011, on behalf of Cohan Radio Group, Inc. ("Cohan"), licensee of Station WWOJ(FM), Avon Park, Florida.¹ Cohan proposes to conduct experimental operations to determine the feasibility of broadcasting independent, targeted messages on FM Booster stations. Cohan proposes to construct three temporary FM Booster facilities and to broadcast noncommercial announcements on the booster stations while simultaneously broadcasting different programming on the main station. Cohan proposes to use proprietary technology provided by Lazer Spots, LLC, which will allow different announcements to be placed on the boosters in a synchronized time sequence. Other than the foregoing, no changes to the authorized technical facilities are contemplated. Cohan states that the experimental broadcasts will be conducted over a 60-day period.

Our review indicates that the proposed experimental operation meets the requirements of Section 73.1510 of the Commission's rules and that the proposed experimental operation is not likely to result in interference to any other station. Although some intrasystem interference is to be expected from the experimental operation, we believe that Cohan will act in its own self-interest to minimize any detrimental effect on its listeners. We find that the Public Interest would be served through the collection of data on the feasibility of transmitting independent, targeted announcements on FM Boosters, which could be used in support of a Petition for Rule Making to modify the Commission's Rules to permit the use of such transmissions. We believe that, in order to provide for setup and preliminary testing of the booster facilities in addition to the proposed 60-day experimentation, a term of 120 days is appropriate.

Accordingly, the request for Experimental Authorization IS GRANTED. Station WWOJ may construct the following temporary FM Booster facilities:

¹ WWOJ is licensed for operation on Channel 256C3 (99.1 MHz), with effective radiated power of 10 kilowatts (H&V) and antenna height above average terrain of 157 meters.

1. Booster location: Zolfo Springs, Florida
 Geographic coordinates: 27° 21' 59" N, 81° 47' 52" W (NAD 1927)
 Channel 256 (99.1 MHz)
 Effective radiated power: Not to exceed 5 kilowatts (Max-DA, V only)
 Antenna type: Composite array, Four Aldena, model
 ALP.08.02.712 log periodic antennas, 2 x 2
 stack, directional
 Antenna orientation: 0° True
 Antenna height:
 above ground: 64 meters
 above mean sea level: 81 meters
 above average terrain: 64 meters

2. Booster location: Wauchula, Florida
 Geographic coordinates: 27° 29' 24" N, 81° 50' 29" W (NAD 1927)
 Channel 256 (99.1 MHz)
 Effective radiated power: Not to exceed 5 kilowatts (Max-DA, V only)
 Antenna type: Composite array, Four Aldena, model
 ALP.08.02.712 log periodic antennas, 2 x 2
 stack, directional
 Antenna orientation: 12° True
 Antenna height:
 above ground: 72 meters
 above mean sea level: 96 meters
 above average terrain: 72 meters


3. Booster location: Frostproof, Florida
 Geographic coordinates: 27° 42' 41" N, 81° 33' 04" W (NAD 1927)
 Channel 256 (99.1 MHz)
 Effective radiated power: Not to exceed 5 kilowatts (Max-DA, V only)
 Antenna type: Composite array, Four Aldena, model
 ALP.08.02.712 log periodic antennas, 2 x 2
 stack, directional
 Antenna orientation: 13° True
 Antenna height:
 above ground: 38 meters
 above mean sea level: 76 meters
 above average terrain: 38 meters

During the 60 day test period, Cohan may transmit independent, noncommercial announcements on the temporary FM Booster Stations as described above. Limited waiver of 47 C.F.R. Section 74.1231(h) is granted to the extent necessary for the proposed experimentation. Cohan shall employ whatever means are necessary to prevent excessive exposure of workers or the public to radio frequency radiation, pursuant to Section 1.1310. Within 60 days following completion of the experimental operation authorized herein, Cohan shall file a full report of the research,

experimentation and results with the Commission, pursuant to Section 73.1510(d). The authority granted herein does not convey or imply any authority for continued operation beyond the expiration date below. Following completion of the proposed experimental operation, the three temporary FM Booster stations shall be dismantled. Any construction undertaken pursuant to this authority is entirely at Cohan's own risk. This authority may be modified or cancelled by the FCC at any time without prior notice or right to hearing.

This authorization expires on **January 28, 2012**.

Sincerely,

A handwritten signature in black ink, appearing to read "Charles N. Miller", with a long horizontal flourish extending to the right.

Charles N. Miller, Engineer
Audio Division
Media Bureau

cc: Cohan Radio Group, Inc.

ATTACHMENT G

Shainis & Peltzman, Chartered

Aaron P. Shainis
aaron@s-plaw.com

Lee J. Peltzman
lee@s-plaw.com

Counselors at Law
Suite 240
1850 M Street, NW
Washington, D.C. 20036

Tel (202) 293-0011
Fax (202) 293-0810
e-mail: shainispeltzman@s-plaw.com

Special Counsel
Stephen C. Lechar
steve@s-plaw.com

January 18, 2012

VIA HAND DELIVERY

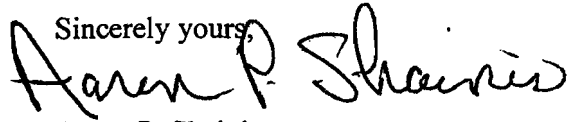
Marlene H. Dortch
Secretary
Federal Communications Commission
Portals II - 12th Street Lobby
Filing Counter - TW - A325
445 12th Street SW
Washington, DC 20554

FILED/ACCEPTED
JAN 18 2012
Federal Communications Commission
Office of the Secretary

Re: Cohan Radio Group, Inc.
WWOJ(FM), Avon Park, Florida
Facility ID No. 27199

Dear Ms. Dortch:

On September 28, 2011, Cohan Radio Group, Inc., the licensee of WWOJ(FM), Avon Park, Florida, was granted its Request for Experimental Authorization, which was filed on July 19, 2011 and supplemented on September 22, 2011. Pursuant to the grant of the Experimental Authorization, testing was conducted. Furthermore, as required by the Experimental Authorization, the licensee is submitting the attached report. If there are any questions with respect to this matter, please communicate with the undersigned.

Sincerely yours,

Aaron P. Shainis
Counsel for
Cohan Radio Group, Inc.

Enclosure

cc (w/ enc): Norm Miller (via email)

STAMP & RETURN

**Report to the FCC
Cohan Radio Group
WWOJ (FM) Experimental Test Report**

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EXECUTIVE SUMMARY

BACKGROUND FOR TEST AUTHORITY

Cohan Radio Group, Inc. ("Cohan"), requested an Experimental Authorization on July 19, 2011 and supplemented that request on September 22, 2011. Cohan is the licensee of Station WWOJ (FM), Avon Park, Florida. Cohan proposed to conduct experimental tests to determine the feasibility of broadcasting independent, targeted messages on FM Booster stations. Cohan proposed to construct three temporary FM Booster facilities and to broadcast noncommercial announcements on the booster stations while simultaneously broadcasting different programming on the main station. Cohan proposes to use proprietary technology provided by Lazer Spots, LLC, which will allow different announcements to be placed on the boosters in a synchronized time sequence. The implementation of the tests were done by Lazer Spots, LLC under the direction and supervision of Cohen.

On September 28, 2011, the Commission granted the experimental authorization (Attachment B) effective until January 28, 2011. The authorization specified that "within 60 days following completion of the experimental operation authorized herein, BMU shall file a report of the research, experimentation and results with the Commission pursuant to Section 73.1510(d)."

GENERAL DESCRIPTION OF TEST

Conventionally planned FM broadcasting networks consist of transmitters with independent program signals on individual FM radio frequencies as allocated and regulated by the FCC. The allocation of the radio frequency for each transmitter and protected service and interference contours are defined by the FCC in Part 73 of Title 47 and FM Translator and Booster Rules in Part 74. Boosters are defined as transmitters which broadcast within Main station's coverage area (a "fill-in") on the same channel and frequency, and were created to allow FM stations to provide supplementary service to areas in which direct reception of radio service is unsatisfactory due to distance or intervening terrain barriers. Lazer Spots, LLC has developed a system that will allow an FM radio station to divide its signal into segments with the use of proprietary booster system design, audio and control switching, routing, hardware, software and implementation techniques. This new idea would allow the station to run different audio messages, such as Public Service Announcements (PSAs) on different booster transmitters simultaneously, thereby creating additional time capacity for such announcements. Lazer Spots™ holds a patent pending application for "Equipment, System and Methodologies for Segmentation of Listening Area into Sub-Areas Enabling Delivery of Localized Auxiliary Information". The concept of adding FM boosters to an existing FM broadcast station within the protected service area of the main station and specifically designed for targeted messaging is an expertise of Lazer Spots, LLC. It allows the ability to target listeners with more local relevant information as well as free up valuable broadcast messaging time.